

PATENT APPLICATION
042390.P3275RC1

Amendment to Claims

Please amend the claims as shown below and add claims 32-37.

1. (Original) A system comprising:

a processor coupled to memory by a bus, the processor having a processor core and a pad ring, the processor core having an independent power supply;

a voltage regulator providing a plurality of voltages and providing the independent power supply;

a clock signal generator providing a clock signal at a plurality of frequencies;

a state machine to coordinate voltage and clock frequency to the processor core; and

an operating system running on the processor, the operating system monitoring an application mix executing in the processor to determine a required frequency, and determining a minimum voltage at which the processor core can operate at the required frequency, wherein the operating system directs the state machine to enter a state in which the required frequency is supplied by the clock signal generator and a closest supported voltage equal to or greater than the minimum voltage is supplied by the voltage regulator.

2. (Original) The system of claim 1 wherein the voltage regulator provides one of an idle voltage or a peak voltage.

3. (Original) The system of claim 1 wherein the voltage regulator can provide one voltage corresponding to each frequency supported by the clock signal generator.

4. (Original) A method of reducing power consumption by a processor core and a pad ring comprising the steps of:

accepting a measure of processor core performance need of each application